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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/520,311

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Michel Paul Barbara Van Bruggen

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

VIJAYAKUMAR, KALLAMBELLA M

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

12/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,311	Applicant(s) VAN BRUGGEN ET AL.	
	Examiner Kallambella Vijayakumar	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Claims 1-10 cancelled. New Claims 11-20 added. Claims 11-20 are currently pending with the application.
- The new abstract filed 09/28/2007 has been entered.

Specification

The disclosure is objected to because of the following informalities:

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The claim-16 recites a limitation of corundum powder with a mean grain size $\leq 0.2 \mu\text{m}$ that is not disclosed in the specification, that discloses using TM-DAR corundum powder [average particle size $0.21\mu\text{m}$; make Boehringer Ingelheim Chemicals, Japan] <Spec, Pg-4, Ln 3-4>. Applicants can overcome this objection by amending the specification to include the claimed subject matter. The claims as filed in the original specification are part of the disclosure and therefore, if an application as originally filed contains a claim disclosing material not disclosed in the remainder of the specification, the applicant may amend the specification to include the claimed subject matter. In re Benno, 768 F.2d 1340, 226 USPQ 683 (Fed. Cir. 1985). <MPEP 2163.06(R3)>.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 11-14 and 16-20 are rejected under 35 U.S.C. 103(a) as obvious over Castro et al (US 2003/0125189).

Castro et al teach a polycrystalline translucent aluminum oxide ceramic (PCA) material having an average grain size of no greater than 1.0 micron and a Contrast Ratio value of less than about 0.4 (Abstract; 0044). PCA possessed substantially zero porosity, had a density greater than about 99.8% theoretical, and contained an alumina grain size of 0.8 micron (P 0006, 0059, 0106, 0127, Tabl-3, Ex-3). The prior art further teaches making the PCA by dispersing/deagglomerating components containing alumina particles in water forming a slurry (99.99% pure TM-DAR alumina with a particle size of 0.18 micron) (P 0053-54, 0097), CIPing the mixture to at least 25% porosity (0055), calcining the sample to attain at least 58% theoretical density (0056), sinter between 1200-1300C attaining 96-98% theoretical density and densifying the composite by HIPing at 1200-1450 C and 110-210 MPa attaining PCA with full

translucency, full density and zero porosity (0059). The transmittance was at least about 40% at 550 nm and ~50% at 650 nm (0046, Fig-10; 0131, Ex-3). The composition contained up to about 0.5 wt% of the sintering aids such as MgO, Y₂O₃, ZrO₂, HfO₂ and CaO that can be used either singly or in a combination (0060). The prior art further teaches using the composition in a sodium vapor lamp envelope (Discharge lamp) (000031, Claim-12).

The prior art is silent about the relative density of the composition being greater than 99.95% and the RIT \geq 30% under specific measurement conditions per claims 11, 14 and 16.

However, the prior art teaches the fully translucent and dense PCA composition with substantially zero porosity and a relative density greater than about 99.8%. The prior art further teaches making the composition by blending the component mixture containing sintering aids, CIPing the blend, forming a green body, calcining the green body in a multistep heating process to attain a density of 96-98% and then HIPing under inert atmosphere by varying a combination of temperature and pressure (Para 0053, 0055-0059) to obtain a fully transparent material. It would have been obvious to a person of ordinary skilled in the art to optimize the process conditions of Castro et al to attain a non porous, high density and transparent PCA by routine experimentation with reasonable expectation of success, and generally, differences in concentration or temperature or pressure or density will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature or pressure or density is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). With regard to the instant claimed optical properties of PCA, the prior art composition is substantially same as that taught by the applicants, and having same utility as enclosures for high-pressure discharge lamps, and the applicant has the burden of showing by tangible evidence that they are not." In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); see also In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971).

With regard to the limitation of $RIT \geq 30\%$ under specific measurement conditions (i.e. reflection+ refraction+diffusion $\leq 70\%$), the prior art PCA is made from components and the process conditions that are similar to that claimed by the applicants (Specification, Pg-4, Ln 1-25) and having similar structure to that claimed by the applicants and further having same common utility as a discharge lamp shroud, and similar compositions are expected to possess similar properties, and if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

With regard to claims 12-13, the prior art teaches PCA composition containing up to about 0.5 wt% of the sintering aids such as MgO, Y₂O₃, ZrO₂, HfO₂ and CaO that can be used either singly or in combination (0060), and the instant claimed ranges lie within this prior art range, and in the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

With regard to method in claim 17, the prior art teaches all the elements of the instant process steps but differs.

With regard to the claims 18-20, the prior art teaches measuring the transmission/translucency using a spectrophotometer by scanning the wave length in the range of 350-800 nm (typically using a quartz halogen lamp and monochromator) that covers the instant claimed wavelength of 645 nm and it would have been obvious to measure the transmission properties using a laser spectrometer including red laser at 645 nm as functional equivalent of the light source in the measurements with reasonable expectation of success. The apertures and the distance would have been obvious variables of measurements using the laser beam as radiation source along with the necessary optics.

2. Claim 15 is rejected under 35 U.S.C. 103(a) as obvious over Castro et al (US 2003/0125189) in view of Yamamoto et al (US 6,417,127).

The disclosure on the composition and making of PCA as set forth in rejection-1 under 35 USC 103(a) is herein incorporated.

The prior art fails to teach the discharge lamp containing a metal halide per the claim.

In the analogous art, Yamamoto et al teach using the PCA as outer tube of a metal halide or sodium vapor lamp (Abstract, Cl-1, Ln 6-15).

It would have been obvious to a person of ordinary skilled in the art to use the PCA of Castro et al as envelope of a metal halide lamp with reasonable expectation of success because Yamamoto et al teach the transparent PCA applications in a genus of lamps containing a metal halide and sodium vapor lamp that encompasses the species of sodium vapor lamp of Castro et al, and the combined prior art teaching is suggestive of the claimed discharge lamp.

3. Claims 11-20 are rejected under USC 103(a) as obvious over Yamamoto et al (US 6,417,127).

Yamamoto teaches a translucent sintered PCA with at least one characteristic features that (1) a mean particle size of crystal particles formed inside the ceramic is not larger than 1.0 micron, (2) a mean aspect ratio thereof is from 1.0 to 1.5, (3) a density thereof is substantially a theoretical density, (4) a light transmittance through its thickness of 1 mm is at least 50%, (5) a mean facet length of crystal particles formed inside the ceramic is not longer than a maximum wave length of the light (Abstract). The PCA contained 0.02-2.0 mol % of oxide of metal belonging to IIIA and/or IVA group (excluding Ti) such as oxides of Y, Yb, Zr, Sc, La and Lu and Mg (Abstract; Cl-13, Tbl-5, Ex-9; Cl-14, Tbl-6, Ex-9). The PCA further had a density of at least 3.98 g/cm³, a mean crystal particle size of 0.3-1.0 micron, its bending strength of at least 1900 MPa and its Vickers hardness of at least 850 at 1000.degree (Cl-4, Ln 34-54; Cl-6, Ln 63-68; Cl-7, Ln 13-18;). A 0.5mm thick sample containing 0.1 mol% (1000 ppm) MgO had a mean particle size of 0.5 micron and linear transmittance of 40% measured with a spectrometer (Cl-14, Tbl-6, Ex-9). The prior art teaches making the PCA composition by blending the component mixture containing high purity alumina with a particle size of 0.22 micron and sintering aids

forming a slurry, drying the blend forming secondary particles, CIPing the blend of secondary particles, calcining in a multistep heating process for about 2 hrs and then HIPing under inert atmosphere by varying a combination of temperature and pressure forming a dense transparent body at temperatures greater than 1200C for a period of 1-hr (CI-8, Ln 36-56; Ex-1; Tables 1-2 and 5-6; Ex 9-12).

The prior art is silent about the RIT per the claims or fails to teach the particle size of alumina or specific process steps per claim-16 or the measurements with a monochromatic wavelength of 645 nm per claims 18-20.

With regard to claim 11, it would have been obvious to a person of ordinary skill in the art to vary the grain size of sintered alumina in the range of 300-700 nm with reasonable expectation of success because the prior art is suggestive of obtaining high translucency/transparency by varying the grain size in substantially poreless and a fully dense doped PCA (CI-2, Ln 36-47; 53-59; CI-7, Ln 37-43; CI-8, Ln 13-16) to attain the claimed composition and characteristics. With regard to the limitation of RIT in the claims, the prior art composition is substantially same as that taught by the applicants, and having same utility as enclosures for high-pressure discharge lamps, and similar compositions are expected to possess similar properties and characteristics, and the applicant has the burden of showing by tangible evidence that they are not." In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); see also In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971). Further See Apte et al (J. Am. Cer. Soc., 2003 (March), 86(3), 480-486; Abstract, Pg-481, Sec-II, Experimental; Fig 1 and 8-9; Pg 486, CI-2, Ln 13-15).

With regard to claims 12-13, the prior art teaches the addition of 0.02-2.0 mol % of oxide of metal belonging to IIIA and/or IVA group (excluding Ti) such as oxides of Y, Yb, Zr, Sc, La, Lu and **Mg**, whose range overlaps over instant claimed ranges in the claim and lies inside the ranges respectively, and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

With regard to claims 14-15, the prior art teaches using the PCA in a sodium vapor lamp or a metal halide lamp (CI-1, Ln 6-15).

With regard to method in claims 16-17, the prior art teaches making the PCA composition by a process similar to that claimed by the applicants while it differs from it in using the alumina particles with a particle size of 0.22 microns, casting dried slurry and HIPing for 1-hr. With regard to the particle size, the prior art particle size of 0.22 micron lies close to instant claimed particle size of 0.2 micron or less, and Similarly, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (Court held as proper a rejection of a claim directed to an alloy of "having 0.8% nickel, 0.3% molybdenum, up to 0.1% iron, balance titanium" as obvious over a reference disclosing alloys of 0.75% nickel, 0.25% molybdenum, balance titanium and 0.94% nickel, 0.31% molybdenum, balance titanium.). With regard to slurry casting of the composition, the prior art teaches molding the components, and Omission of an Element and Its Function Is Obvious If the Function of the Element Is Not Desired *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989) <MPEP 2144.04>. With regard to HIPing for ore than 2 hrs, the prior art teaches HIPing the composition, and Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

With regard to the claims 18-20, the prior art teaches measuring the transmission/translucency using a spectrophotometer by scanning the wave length in the range of 350-800 nm (typically using a quartz halogen lamp and monochromator) that covers the instant claimed wavelength of 645 nm and it would have been obvious to measure the transmission properties using a laser spectrometer including red laser at 645 nm as functional equivalent of the light

source in the measurements with reasonable expectation of success. The apertures and the distance would have been obvious variables of measurements using the laser beam as radiation source along with the necessary optics.

4. Claims 11-20 are rejected under USC 103(a) as obvious over Yamamoto et al (EP 1053983).

Yamamoto teaches a translucent sintered PCA with at least one characteristic features that (1) a mean particle size of crystal particles formed inside the ceramic is not larger than 1.0 micron, (2) a mean aspect ratio thereof is from 1.0 to 1.5, (3) a density thereof is substantially a theoretical density, (4) a light transmittance through its thickness of 1 mm is at least 50%, (5) a mean facet length of crystal particles formed inside the ceramic is not longer than a maximum wave length of the light (Abstract). The PCA contained 0.02-2.0 mol % of oxide of metal belonging to IIIA and/or IVA group (excluding Ti) such as oxides of Y, Yb, Zr, Sc, La and Lu and Mg (Abstract; Pg-12, Tbl-5, Ex-9; Pg-13, Tbl-6, Ex-9). The PCA further had a density of at least 3.98 g/cm.³, a mean crystal particle size of 0.3-1.0 micron, its bending strength of at least 1900 MPa and its Vickers hardness of at least 850 at 1000.degree (0024-26, 0036, 0037, 0039). A 0.5mm thick sample containing 0.1 mol% (1000 ppm) MgO had a mean particle size of 0.5 micron and linear transmittance of 40% measured with a spectrometer (Pg-13, Tbl-6, Ex-9). The prior art teaches making the PCA composition by blending the component mixture containing high purity alumina with a particle size of 0.22 micron and sintering aids forming a slurry, drying the blend forming secondary particles, CIPing the blend of secondary particles, calcining in a multistep heating process for about 2 hrs and then HIPing under inert atmosphere by varying a combination of temperature and pressure forming a dense transparent body at temperatures greater than 1200C for a period of 1-hr (0057-58; Ex-1; Tables 1-2 and 5-6; Ex 9-13).

The prior art is silent about the RIT per the claims or fails to teach the particle size of alumina or specific process steps per claim-16 or the measurements with a monochromatic wavelength of 645 nm per claims 18-20.

With regard to claim 11, it would have been obvious to a person of ordinary skilled in the art to vary the grain size of sintered alumina in the range of 300-700 nm with reasonable expectation of success because the prior art is suggestive of obtaining high translucency/transparency by varying the grain size in substantially poreless and a fully dense doped PCA (0012-0015) to attain the claimed composition. With regard to the limitation of RIT in the claims, the prior art composition is substantially same as that taught by the applicants, and having same utility as enclosures for high-pressure discharge lamps, and similar compositions are expected to possess similar properties and characteristics, and the applicant has the burden of showing by tangible evidence that they are not." In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); see also In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971).

With regard to claims 12-13, the prior art teaches the addition of 0.02-2.0 mol % of oxide of metal belonging to IIIA and/or IVA group (excluding Ti) such as oxides of Y, Yb, Zr, Sc, La, Lu and **Mg**, whose range overlaps over instant claimed ranges in the claim and lies inside the ranges respectively, and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

With regard to claims 14-15, the prior art teaches using the PCA in a sodium vapor lamp or a metal halide lamp (0002).

With regard to method in claims 16-17, the prior art teaches making the PCA composition by a process similar to that claimed by the applicants while it differs from it in using the alumina particles with a particle size of 0.22microns, casting dried slurry and HIPing for 1-hr. With regard to the particle size, the prior art particle size of 0.22 micron lies close to instant claimed particle size of 0.2 micron or less, and Similarly, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (Court held as proper a rejection of a claim directed to an alloy of "having 0.8% nickel, 0.3% molybdenum, up to 0.1% iron, balance

titanium" as obvious over a reference disclosing alloys of 0.75% nickel, 0.25% molybdenum, balance titanium and 0.94% nickel, 0.31% molybdenum, balance titanium.). With regard to slurry casting of the composition, the prior art teaches molding the components, and Omission of an Element and Its Function Is Obvious If the Function of the Element Is Not Desired Ex parte Wu , 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989) <MPEP 2144.04>. With regard to HIPing for ore than 2 hrs, the prior art teaches HIPing the composition, and Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

With regard to the claims 18-20, the prior art teaches measuring the transmission/translucency using a spectrophotometer by scanning the wave length in the range of 350-800 nm (typically using a quartz halogen lamp and monochromator) that covers the instant claimed wavelength of 645 nm and it would have been obvious to measure the transmission properties using a laser spectrometer including red laser at 645 nm as functional equivalent of the light source in the measurements with reasonable expectation of success. The apertures and the distance would have been obvious variables of measurements using the laser beam as radiation source along with the necessary optics.

Response to Arguments

Applicant's arguments filed 09/28/2007 have been fully considered but they are not persuasive. With regard to the argument that Castro et al (2003/0125189) teaches translucent rather than transparent alumina as shown by the pattern in Fig-2 (Res, Pg-8, Para-2) and non-analogous as it is directed to dental prosthetics (Res, Pg-9, Para-1), the prior art teaches PCA compositions and method of making the PCA that are similar to that claimed by the applicants using the same alumina used by the applicants (TM-DAR) and further clearly teaches its

application to discharge lamps. The data in Fig-2 corresponds to a specimen that is undoped (without sintering-additives) (Pg8, 0109-0111), and A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). See also *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998). Further, a composition with an RIT of 30% need not necessarily be fully transparent (100% Total transmission) i.e. it could be translucent too.

With regard to the argument that Yamamoto (US 6,417,127) teaches away from using MgO in forming PCA (Res, Pg-9, Para-2), the prior art clearly teaches compositions containing MgO (Ex-9 in Tables 5 and 6) and suggestive of using MgO as an additive (Cl-7, Ln 13-18).

For the reasons set forth above applicants fail to patentably distinguish their composition, process and lamp over the prior art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 571-272-1324. The examiner can normally be reached on 6.30-4.00 Mon-Thu, 6.30-2.00 Alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KMV/
Nov 30, 2007.


J.A. LORENGO
SUPERVISORY PATENT EXAMINER